REMARKS

This application has been reviewed in light of the Office Action mailed on January 15, 2003. Claims 1-26 are pending in the application where Claims 12-26 having been withdrawn from consideration. By the present amendment, the specification and Claims 1 and 10 have been amended. No new matter or issues are believed to be introduced by the amendments.

Applicants gratefully acknowledge the allowance of Claim 5 if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 1 has been amended to include the limitations of Claim 5. Accordingly, Claim 1 is considered to be in condition for allowance and such is earnestly solicited. Dependent Claims 2, 3 and 6-11 depend from independent Claim 1 and therefore contain the limitations of independent Claim 1. Therefore, for at least the reasons given above for Claim 1, dependent Claims 2, 3 and 6-11 are believed to be in condition for allowance and such is earnestly solicited.

In the Office Action, the specification was objected to. The specification has been amended in a manner which is believed to overcome the objection. Accordingly, withdrawal of the objection is respectfully requested.

Claim 10 was rejected under 35 U.S.C. §112, second paragraph. Claim 10 has been amended in a manner which is believed to overcome the rejections. Accordingly, withdrawal of the rejection is respectfully requested.

Claims 1-4, 6-8 and 11 were rejected under 35 U.S.C. §103(a) over U.S. Patent No. 5,744,898 issued to Smith et al. on April 28, 1998 and Claims 1-4, 6-9 and 11 were

rejected under 35 U.S.C. §103(a) over U.S. Patent No. 4,277,712 issued to Hanafy on July 7, 1981 in view of Smith et al. Claim 4 has been cancelled.

Claim 1 has been amended as indicated above to include the limitations of Claim 5. The Examiner indicated that Claim 5 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claim 1, as amended, is substantially analogous to Claim 5 as rewritten in independent form including all of the limitations of the base claim and any intervening claims. Accordingly, withdrawal of the rejections under 35 U.S.C. §103(a) and allowance of Claim 1 are respectfully requested.

Claims 2, 3 and 6-11 depend from Claim 1, and therefore include the limitations of Claim 1. Accordingly, for the same reasons given for Claim 1, Claims 2, 3 and 6-11 are believed to contain patentable subject matter. Hence, withdrawal of the rejection under 35 U.S.C. §103(a) and allowance of Claim 2, 3 and 6-11 are respectfully requested.

In view of the foregoing amendments and remarks, it is respectfully submitted that all claims presently pending in the application, namely, Claims 1-3 and 6-11, are believed to be in condition for allowance and patentably distinguishable over the art of record.

Attached hereto and identified as VERSION WITH MARKINGS TO SHOW CHANGES MADE is a copy of the paragraph on page 7, lines 19-23 and amended claims detailing the amendments made thereto.

If the Examiner should have any questions concerning this communication or feels that an interview would be helpful, the Examiner is requested to call John Vodopia, Esq., Intellectual Property Counsel, Philips Electronics North America, at 914-333-9627.

Respectfully submitted,

George Likourezos
Reg. No. 40,067
Attorney for Applicants

Mailing Address:
Intellectual Property Counsel
Philips Electronics North America Corp.
580 White Plains Road
Tarrytown, New York 10591

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION:

Paragraph on page 7, lines 19-23:

-- A number of different methodologies can be used to join the piezoelectric element 115 to the IC 120, many of which are disclosed in commonly assigned U.S. Patent Application entitled "System for Attaching an Acoustic Element to an Integrated Circuit," filed on even date herewith, and assigned Ser. No. [XXXXX] 09/919,470, [(Attorney Docket No. 10004001)].—

IN THE CLAIMS:

1. (Amended) An ultrasonic transducer, comprising:

an ultrasonic sensor having a plurality of elements; and

an integrated circuit formed on a wafer, the wafer including a plurality of cavities defining a plurality of posts such that the cavities alter the acoustic impedance of the wafer, and wherein the integrated circuit is joined to the ultrasonic sensor and wherein each of the elements of the ultrasonic sensor is located over one of a respective one of the plurality of posts and a respective one of the plurality of cavities.

10. (Amended) The transducer of claim 1, wherein the cavities are configured and dimensioned for altering the acoustic impedance of the wafer [increases] to increase the effective bandwidth of the transducer elements.